

IN THE SPECIFICATION

Please amend the paragraph at page 2, lines 2-17, as follows:

The pin planting positions in the backup device have been determined by an information processing device for controlling the mounting operations of electronic components, as follows: The information processing device makes reference to information about the size, shape and the like of a board to have electronic components mounted thereon and if the board has mounted electronic components on the reverse side, also makes reference to the electronic component mounting positions on the reverse side. The information processing device then excludes pin planting positions which are not encompassed in an area corresponding to the size and shape of the board, from the positions of plural pin holes opening on the backup plate, that is, ~~[[form]]~~ from all of the pin planting positions, and in the case of the board having electronic components mounted on the reverse side, further excludes pin planting positions encompassed within the areas which overlap the electronic component mounting positions. As a result, pin planting positions which are left finally are distinguished (determined) as the planting positions for the backup pins which are able to support the board.

Please insert the following heading between lines 8 and 9 on page 3 as follows:

SUMMARY OF THE INVENTION

Please delete the heading at line 15 on page 3 as follows:

~~DISCLOSURE OF THE INVENTION~~

Please amend the paragraph at page 15, lines 12-22, as follows:

The backup device 40 as constructed above holds the board support unit 41 at its lowered position (indicated by the two-dot-chain line in Figure 3) during any other time than

mounting the components. When the board S is transferred by the board transfer device 30 to be stopped (as indicated by the two-dot-chain line in Figure 3) the backup device 40 upwardly moves the board support unit 41 by the operations of the elevator devices 42 and upwardly pushes the board S to hold the same at a raised position (indicated by the solid line in Figure 3) and to keep that state until the mountings of the components are completed. Then, upon completion of the component mountings, the backup device 40 lowers the board support unit 41 to the lowered position.

Please amend the paragraph at page 18, line 24 to page 19, line 12, as follows:

The control section 81 has connected thereto an input section 83, the display section 84, a rewritable memory section 85, a production program preparation section 86, an image data preparation section 87, a backup pin coordinate data preparation section 88, a planting sequence data preparation section 89, a feeder setup data preparation section 91 and a component information database 92. The input section 83 is provided for being manipulated by the worker to input necessary information, data and the like. This input section 83 also functions as a support place position designation device, by which the positions of the backup pins 41b constituting the support places of the backup device 40 for supporting the board can be designated at desired positions on a surface side image and/or a reverse side image being displayed in the display section ~~[[84-]]~~ 84. The display section 84 is provided for displaying various states of control. Another output section (printer section) may be provided in place of the display section 84 (or, together with the display section 84).

Please amend the paragraph at page 20, lines 13-20, as follows:

The image data preparation section 87 prepares production board image information, that is, a superposed image shown in ~~Figure~~ Figure 8 based on the board CAD data which

has been stored after being acquired from the board designing CAD system or based on the production program prepared in the production program preparation section 86. The image data preparation section 87 also has a function as a superposed image preparation device for preparing the superposed image by superposing the surface side image and the reverse side image.

Please amend the paragraph at page 22, line 10 to page 23, line 7, as follows:

At step 106, the host computer 80 first prepares a surface side image (refer to Figure 7(a)) and a reverse side image (refer to Figure 7(b)) which respectively show the surface and reverse sides of each board having components mounted thereon, based on the production board information or the production program. Each of these images is constituted by at least the outline of the board and the outlines of the components. Where the board has holes and slits inside thereof, it is preferable for the image to include the outlines of these holes and slits. Then, the host computer 80 superposes the prepared surface side image and reverse side image in the same coordinate system to display them as a superposed image (the production board image) in the display section 84 (refer to Figure 8). At this time, it is desired to display the components mounted on the surface side of the board and the components mounted on the reverse side of the board respectively in visually different modes. This may be done by displaying the components mounted on the surface side and the reverse side respectively in red and green for example. Further, it is preferable to display planting inhibition areas for the backup pins at the same time. ~~[[This]]~~ The planting inhibition areas are the areas in which the positions of the pins interfere with the components on the support surface, that is, the areas which are set to prevent the pins from interfering with the components on the support surface, and are set based on the outlined areas of the components and the external dimensions of the

pins. Where the worker designates a pin position within any of the planting inhibition areas, it is desirable to inhibit such designation and to alert that such designation is not allowed.